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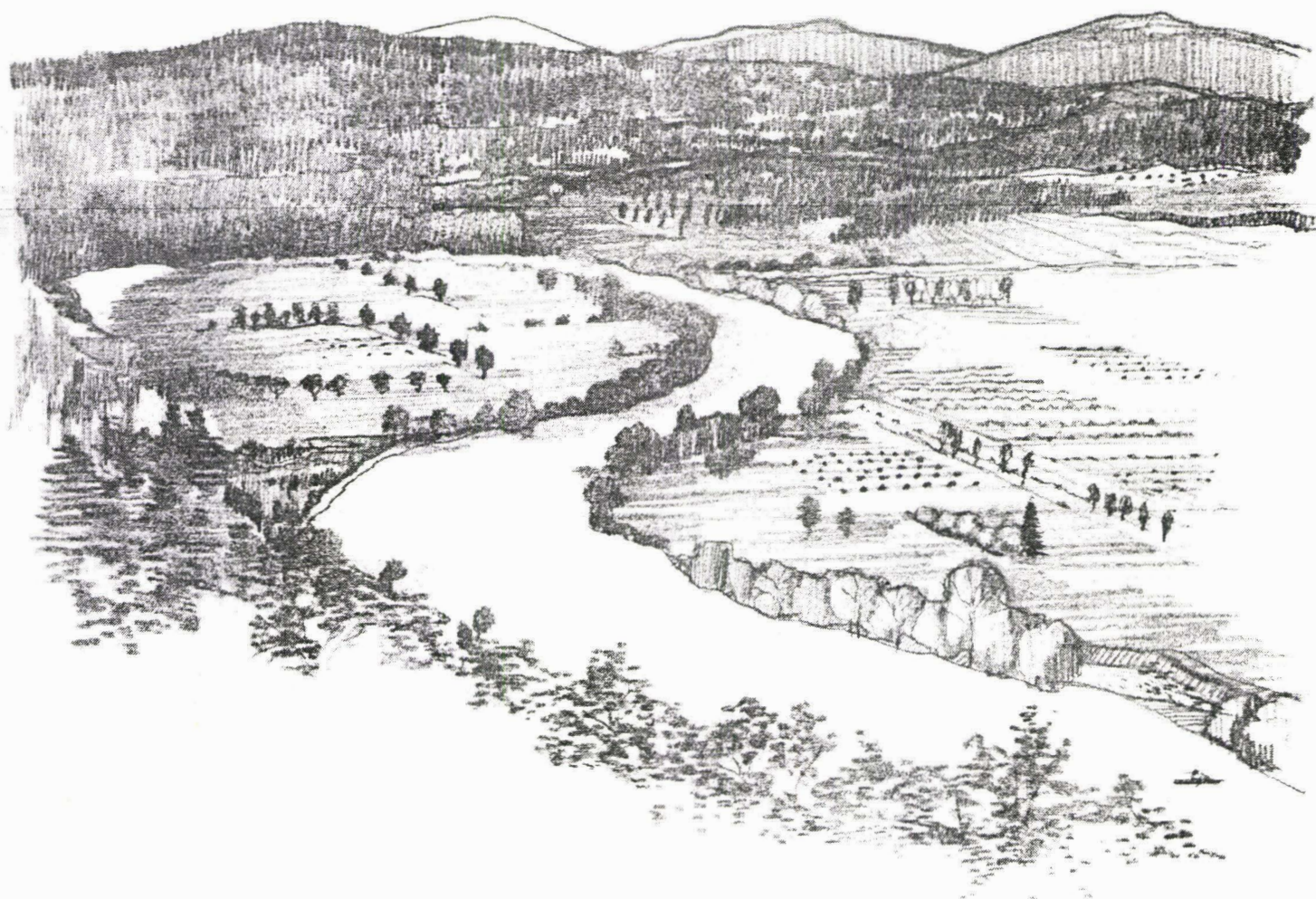
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Historic Buildings in Wilderness: A Search for Compatibilities

THROOP

By Gail Throop
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Executive Summary

HISTORIC BUILDINGS IN WILDERNESS: A SEARCH FOR COMPATIBILITIES

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Forest Service policy does not preclude retention of National Register eligible sites, buildings, and structures in wilderness, but in practice management direction encourages abandonment. The Manual states that Regional Foresters may approve stabilization or restoration and subsequent maintenance of such structures if their continued existence is essential to cultural resource management. The inference is that a property must be of exceptional significance to merit retention, but this level is undefined. The qualities required to make a property essential to cultural resource management are not given, but again the inference is exceptional value. This paper describes a process for determining which standing historic buildings in wilderness are "essential for cultural resource management". In its simplest form, the process answers the questions of which, why, where, when and how. The process was developed in response to the need of managers to resolve the question in a manner that meets both wilderness and cultural resource management objectives. The intent was to devise an objective classification system that had Regionwide utility, and Servicewide applicability.

A careful review of existing direction revealed there is no conflict in the legislation. The Wilderness Act does not prohibit retention of historic buildings, and the National Historic Preservation Act does not require their preservation in place. The issue is one of dominant and subordinate values. The problem was to define the conditions under which it would be appropriate to retain a historic property and what values or level of significance that property needed to exceed the dominant value of wilderness. The solution was to seek compatibilities in the historic developmental spectrum between wilderness and civilization. Several important analytical tools already exist that could be applied, including the ROS system, WRS and LAC, as well as the technique of thematic evaluation. The approach was to identify the most relevant aspects of these existing tools and combine them in a meaningful way to solve the problem. There is nothing new under the sun.

The process is not an entirely new methodology, but a synthesis of current methods. It consists of a series of interrelated steps drawn from existing procedures and systems. The process is premised on the concept of thematic evaluation, and derives from the need to evaluate cultural properties in comparison with other similar entities. Five theme groups of historic buildings common to many wildernesses in the Pacific Northwest Region are treated in this paper. The process can easily be adjusted to deal with other property types representing different historic themes. Six steps are involved in the overall process, once base inventory data are available.

Step 1 recognizes the absolute values of historic buildings through evaluation against the National Register criteria. This first level of evaluation establishes the legal significance. Step 2 is a further

evaluation against detailed thematic criteria to establish the relative importance of the eligible buildings in a theme group for management. Step 3 entails rank-ordering the raw scores derived from the evaluative procedure and locating them on a curve to assign classification. In Step 4, WRS class standards are applied to determine whether the retention of a historic building of primary, secondary, or tertiary rank is compatible, inconsistent, or incompatible on a class by class basis. Step 5 is a further refinement of the management analysis. The historic ranking is coordinated with ROS class to discover what management treatment(s) are appropriate to the setting. Finally, in Step 6 it is necessary to identify and assess the impacts, if any, associated with the building site, and to set a Limit of Acceptable Change for the site through the LAC planning process.

To demonstrate how the process can be applied to resolve long-standing questions about retention of historic buildings in wilderness, a case study of the Timberline Trail-Shelter System in the Mt. Hood Wilderness is described.

The test case illustrates the flexibility of the Essential Process. It is applicable to a wide range of simple and compound historic properties in wildernesses in the Pacific Northwest Region and, with minor adjustments, has Servicewide utility. The process offers an objective and defensible approach to selecting historic buildings for retention. It is compatible with existing policy and is a logical extension of proposed new direction for treatment of significant cultural resources in wilderness.

Pacific Northwest Region

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ABSTRACT

Forest Service policy does not preclude retention of National Register eligible buildings in wilderness, but in practice management direction encourages abandonment. Regional Foresters may approve stabilization or restoration of such structures if their continued existence is essential to cultural resource management. This paper describes a process for determining which buildings in wilderness meet that essential standard. In its simplest form, the process answers the questions of which, why, where, when, and how.

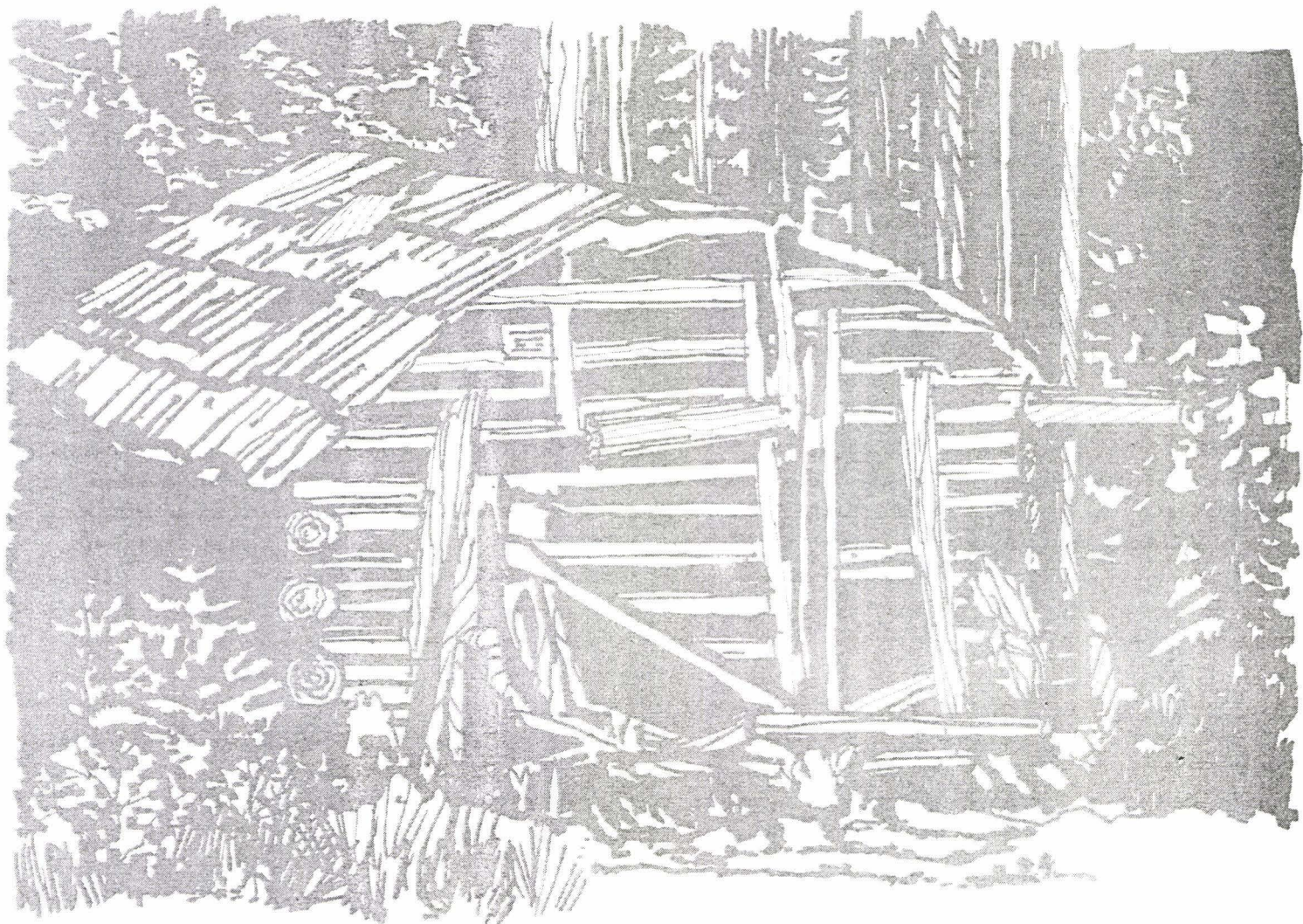
The Essential Process does not represent a new methodology, but is a synthesis of the most relevant elements of several existing analytical tools including ROS, WRS, LAC, and the technique of thematic evaluation. The process defines an objective and flexible classification system that has Regionwide utility and, with minor adjustments, Servicewide applicability. The project included a case study to test the process.

Others who might find this report useful: Line and staff officers with responsibility for wilderness management, recreation planners, and wilderness and cultural resource specialists.

Key Words: Wilderness, Buildings, Evaluation, Compatible, WRS, ROS, LAC, Essential Process

**Historic Buildings in Wilderness:
A Search For Compatibilities**

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INTRODUCTION

HISTORIC BUILDINGS IN WILDERNESS: A SEARCH FOR COMPATIBILITIES

Wilderness was the basic ingredient of American civilization. From the raw materials of the physical wilderness Americans built a civilization: With the idea or symbol of wilderness they sought to give that civilization identity and meaning.

Roderick Nash, 1973

INTRODUCTION

Wilderness and civilization have been compared and contrasted in the American consciousness from the time of national beginnings. For much of this time, progress and development of the natural environment were dominant social values. There was, however, a progression in thought and action from unrestricted development of boundless natural resources to conservation and wise use of limited natural resources in the half century between 1865 and 1915. Although there were individuals, such as Henry Thoreau and John Muir, advocating wilderness preservation as early as 1854, and while areas such as Yellowstone, Yosemite, and New York's Adirondack Mountains were set aside as wild land by Federal and State governments, these were exceptions. It was only in the early 1920's that the value of non-development was generally espoused, and the movement toward preservation gained momentum. Because this idea was perceived to challenge the traditional beliefs, and because it was perceived as a threat to industry and individual livelihood, the emerging issue of wilderness protection became emotionally charged.

There was a parallel track in the American view of development of the built environment. A new country without a history could only go forward. New construction was equated to material progress. The value of retaining tangible parts of the past to provide a sense of identity and rootedness was only gradually recognized. The idea that preservation was also progress was a product of the mid-20th century. The historic preservation movement was equally fervent, but less controversial.

The two movements had much in common -- a value shared by a few, a cause associated with affluence and leisure time, a resource threatened by the press of time and development, a non-commodity product that provided no economic returns. The point of divergence, of open antagonism, occurred not with the passage of the environmental and preservation legislation in the mid-1960's, nor with the articulation of the "purist" approach to wilderness management, but with the over-reaction to that policy which resulted in the removal of many buildings and structures located within wildernesses. Cultural resource specialists taught themselves to believe there was a fundamental conflict between wilderness and cultural resource management. That belief persists to date.

In "Cultural Resources and Wilderness: The White Hats Versus The White Hats", (*Journal of Forestry*, October 1989) authors Loretta Neumann and Kathleen M. Reinberg describe the historic perception of conflict between the laws and refute it, but introduce the perception that policy for cultural resource management [activities] in wilderness is ambiguous and often inconsistent, and that an affirmative CRM program is lacking (Neumann and Reinberg, 1989, pp.12,14).

The retention and preservation of standing historic buildings and structures in wilderness is a particular issue in affirmative [CR] management. The issue, in turn, reflects both old and new

perceptions about wilderness policy. The cause is an imperfect understanding of the wilderness resource, and the objectives of wilderness management: the result is continued debate freighted with conflict and ambiguity.

PURPOSE

This paper describes a process through which informed decisions can be made about the appropriate treatment of standing historic buildings and structures in wilderness. The perception of conflict between wilderness and historic preservation persists because it is inferred that there is a different standard within wilderness. There is conflict and confusion because that "different" standard is not clearly defined. What is "essential for cultural resource management?" It depends, e.g. on the scope and importance of the historic theme(s) represented; and it varies--e.g. with the population and distribution of the class of resources. There is no single absolute answer, but there are logical and defensible approaches that can be taken. The purposes of this paper are threefold: (1) To examine five thematic groups of historic buildings and structures common in wildernesses in the Pacific Northwest Region; (2) To develop criteria/establish standards for determining rank order of relative importance in each resource class; (3) To identify a hierarchy for management/treatment that conforms to social/psychological expectations. This hierarchy should address the concepts basic to the Recreation Opportunity Spectrum (ROS), should be compatible with Wilderness Resource Spectrum (WRS) conditions, and should fit with the Limits of Acceptable Change (LAC) planning process.

INFORMATION SOURCES

This section summarizes the literature search and acknowledges persons helpful in the development of this process. In general, the questions remained much as initially stated. The literature search emphasized technical aspects, while later information gathering centered on philosophies, alternative strategies, and the range of possible management actions, together with the consequences of each on recreation experience.

Literature:

The initial literature searches focused on these subjects: LAC, visitor use/perceptions, wilderness, and recreation use of wilderness, as well as references to treatment of historic buildings in wilderness. Some of the most relevant material was found in existing statutes and their legislative histories, regulations and Forest Service policy as stated in the Forest Service Manual. In addition, research papers on the concepts behind the Recreation Opportunity Spectrum and in-Service publications on the ROS and its applications were very useful. General Technical Report INT-176 "The Limits of Acceptable Change (LAC) System for Wilderness Planning" by George Stankey, Robert Lucas, Margaret Petersen, and Sidney Frissell (1985) was insightful.

Reference was made to several published works on Pacific Northwest history, western mining, and fire management history. Both primary and secondary sources on Forest Service history, including early public land administration, resource protection, conservation, management, and development, were contained in Regional CRM files and consulted for this project. In addition, a number of sources derived from contracted research on fire lookouts and fire detection systems were used as well as evaluation reports on trail shelters written by Forest Service cultural resource specialists. The evaluation phase of the Essential Process is based on prior work with Depression-era resources in the Pacific Northwest Region.

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More valuable than the literature sources were the people who contributed their knowledge, experience, and insights. Those with the most profound influence on this paper are listed below.

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DIRECTION:
STATUTES, REGULATIONS, AND POLICY

To set the stage for the Essential Process, it is necessary to examine the statutes, regulations, and policy that govern the establishment and management of wilderness, and those that protect significant historic resources. This should clarify the requirements and prohibitions of each and how they operate in relation to each other.

Wilderness Legislation

Public Law 88-577 (16 USC 1131-1136), the Wilderness Act was passed by Congress, and signed by President Lyndon Johnson on September 3, 1964. The Wilderness Act was designed to preserve wilderness, its character and its values. Such wilderness was defined as follows:

A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and community of life are untrammelled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

The definition is not that of absolute wilderness, where there is no human influence and the area remains in its purest natural form. Legal wilderness is something below the absolute. The Act permits certain activities and contains prerogatives that preclude the establishment of absolute wilderness in large scale. For instance, mining is permitted on valid claims, access to valid occupancies and private land is provided for, and fire control, insect and disease control, grazing and visitor use are permitted. (FSM 4/86 Amend 97-2320.6--2).

The Wilderness Act does not eliminate "historical value" as a contributor to wilderness (The Wilderness Society, 1984, p.27) but explicitly provides for it. Neither the definition of [legal] wilderness nor any language contained in the Act preclude the retention and preservation of significant historical buildings and structures located in designated wildernesses, although there are people who construe the "without permanent improvements" language to mean that historic buildings are nonconforming and inappropriate. Subsequent legislation including the Acts establishing the Hells Canyon National Recreation Area and the River of No Return Wilderness, and the Wild and Scenic Rivers Act, affirm congressional intent to actively provide for historic values by expanding responsibilities for preservation of historic buildings and structures.

Cultural Resource Legislation

In 1966, Congress enacted the National Historic Preservation Act (NHPA). The Historic Preservation Act was designed to protect the physical evidence of our history and prehistory and to preserve its values. This legislation created the National Register of Historic Places (NRHP) and established the Advisory Council on Historic Preservation (ACHP). Section 106 of the Act requires the protection of significant historic properties from the effects of proposed undertakings. The consultation process described in 36 CFR 800 is the protection afforded significant cultural resources. Section 110 of the NHPA (1980 Amendments) directs federal agencies to take responsibility for preserving historic properties they control. Neither the National Historic Preservation Act of 1966, as amended, nor its implementing regulations guarantee the physical preservation of any significant historic building or structure.

Forest Service Policy

Although there is a perception of conflict between the Wilderness Act and the National Historic Preservation Act, there is no literal contradiction. Each law seeks to protect and preserve something that our society values. There is a divergence in basic concept, however. Wilderness celebrates wild land, governed by natural forces and processes, with the evidence of human activity substantially unnoticeable. Historic preservation honors past human constructions as important contributions to civilization. There is a linkage, however, and that is the human value and presence in each. Wilderness and civilization occupy opposite ends of a spectrum: The continuity across the spectrum is human history. In the beginning all was wilderness. Modern civilization was impressed upon wilderness, and expanded through time to create a developmental spectrum from urban to wilderness. Understanding the relationship between wilderness and civilization is seeking compatibilities. The Essential Process is designed to find those compatibilities.

The problem is not apparent when the wilderness and cultural resource statutes are considered independently, but emerges when the two Acts are superimposed. The interface is not exact. The Forest Service's interpretation of the Wilderness statute has enhanced, perhaps, the perception of conflict with regard to management of cultural resources in wildernesses. Forest Service policy, as stated in the Forest Service Manual, is clear: "where there are alternatives among management decisions, wilderness values shall dominate over all other consideration except when limited by the Wilderness Act, subsequent legislation, or regulation....Remove existing structures not essential to the administration, protection, or management of wilderness for wilderness purposes... (FSM 4/86 Amend 97-2320.3). Taken out of context, and applied to standing historic buildings and structures, these policy statements could be construed as negative. In fact, however, when taken in context, these and the several other items of policy simply describe an affirmative program of wilderness management. It could also be argued that history is a wilderness value, and that the remains of that history contribute to wilderness meaning.

There are express provisions for cultural resource management in wilderness. Historical and cultural resources must be addressed in wilderness planning (FSM 4/86 Amend 97-2322.03--2(b)). Management direction for cultural and historic resources is concise (FSM 2323.83). As a general rule, cabins, shelters, or other structures approaching 50 years of age should be examined for their cultural resource value. Sites or structures that do not qualify for the National Register (FSM 2360) should be removed or allowed to deteriorate naturally unless they are:

1. Deemed necessary to support public purposes of wilderness, as set forth in section 4(b) of the Wilderness Act; or,
2. Serve administrative purposes section 4(c) of the Wilderness Act.

Interpretation of cultural resources located in wilderness shall be done outside the wilderness. Management direction for cultural resources eligible for nomination to the National Register is subject to compliance with Section 106 of the National Historic Preservation Act and 36 CFR 800 (FSM 2366). A decision to remove, maintain, or allow a historic or prehistoric structure to deteriorate naturally is a Federal undertaking that will affect the cultural resource.

Regional Foresters may approve stabilization or restoration and subsequent maintenance of such structures *if their continued existence is essential to cultural resource management*. Elevation of preservation decisions to the Regional Forester level suggests several things. First, that a broader perspective than the immediate situation is needed for such a decision. A second conclusion is that such decisions are not lightly made and not without sufficient justification. (FSM 4/86 Amend 97-2323.04c--12).

Direction for structures and improvements needed for administration also requires brief review, because many administrative buildings are historic. FSM 2324.32 states... "limit existing administrative sites to the existing structures or replace them with similar structures of compatible design. Justify the need for existing stations in forest plans. FSM 2324.33b - directs construction or maintenance of lookouts for fire detection purposes when:

1. They are necessary to achieve wilderness management objectives and when it is not feasible to accomplish such objectives by means more compatible with wilderness values; or
2. They are necessary to protect values outside the wilderness. The need and disposition of existing lookouts shall be documented in the forest plan.

Under management of Recreation, FSM direction is specific regarding shelters:

Except for Alaska, provide no new shelters. Shelters that existed at the time of wilderness designation may be maintained if allowed by specific legislation, or until they require extensive maintenance. Remove them at this time. (FSM 4/86 Amend 97-2323.136).

In summary, after a careful reading of the wilderness and historic preservation statutes, of their implementing regulations, and of Forest Service policy regarding management of wilderness cultural resources no conflicts in requirements were found. An affirmative program of cultural resource management is implicit in wilderness direction through the absence of restrictions and prohibitions. Even strict construction of Manual direction poses no insurmountable hurdle of the preservation of selected significant historic buildings and structures located in wilderness. The explicit charge for affirmative management of historic properties in Section 110 of the NHPA gives added but no different emphasis.

Does this situation differ substantially from that outside wilderness? The answer is no. The NHPA, as amended, does not prescribe or proscribe any treatment - does not require preservation in place of any historic property, let alone all historic properties. The law requires that the values of significant cultural resources are preserved in some appropriate way. No one expects that all significant cultural resources will be retained outside of wilderness. Decisions must be made, preferably based on rational preservation strategies, about what will be retained and what will not, about which buildings will be managed primarily for their historical and/or architectural values, and which will be managed for utility values, or removed or demolished. The same is true for historic buildings within wilderness: the difference lies in the preservation strategy and in the standards for selection.



METHOD

METHODOLOGY

It is neither appropriate nor desirable to retain and preserve all historic buildings and structures in wilderness. The crux is selection. What is "essential to cultural resource management?" How important must a property be? What level of significance? What scope? The Secretary of the Interior's Standards for Evaluation state three distinct requirements for properties listed in the National Register of Historic Places. First, properties must possess significance. Second, the significance must satisfy at least one of the National Register criteria. Finally, significance must be derived from an understanding of historic context. The standards recognize that all that possesses age is not necessarily significant, and what is significant can only be determined in relationship to the historic development from which it emerged and in relationship to a group of similarly associated properties (USDI NPS, 1986). The thematic approach to evaluation of historic buildings is basic to the Essential Process.

The evaluation process designed to identify what is essential to cultural resource management in wilderness entails the identification of relevant historic themes and the development of contexts. These become the framework for analysis of the vernacular resources, isolated local events or persons, properties of recent age, commonplace and ubiquitous resources, and resources of questionable integrity that are so often found in wilderness in the Pacific Northwest.

BACKGROUND

Relevant Historic Themes:

The first step in identifying relevant thematic groups was to review the major themes in Western and Pacific Northwest history. The intent was to determine which themes had application for what is now designated wilderness on National Forest System lands in the Pacific Northwest Region. Sorting on the basis of themes likely to be represented by standing buildings and structures, the mining frontier, industrial development (mining), and the role of the Federal Government - both public land administration and natural resource conservation were found to be primary, with fur trapping, stockraising and agriculture secondary, and commerce a distant third. That legal wilderness is often located at higher elevations is a contributing factor. Many important historic themes were eliminated because the associated events occurred outside or only transitorily in what is now designated wilderness. History in the Pacific Northwest is very recent. Settlement patterns generally show that development initially occurred in the fertile, temperate river valleys and progressed gradually to the hinterlands as resource needs and technology allowed, and as population pressures built. Those areas, including legal wilderness, that were not developed were too inaccessible, too steep, or too resource poor for feasible economic development with existing technology. Simply stated, except for miners, trappers, and the government, people went around or through legal wilderness but did not remain. In a few locations, where there was some arable land, and longer growing seasons to allow at least subsistence cropping and grazing, there may be homesteads and/or farmsteads. Trappers cabins, and such attendant features as marten sets, represent a frontier lifestyle that persisted into the twentieth century. Traces of the trappers passing are widely but sparsely distributed. Stockraising features relate to driving and collection of livestock for seasonal forage use. Distribution of small structural improvements such as drift fences and spring developments is widespread. Line shacks, the buildings associated with herding and collecting activities, are less numerous. Commercial properties are most frequently associated with mining developments.

The primary themes identified in the first sort (mining frontier, industrial development of mineral resources, and the role of the Federal Government) were also found to be the most universal themes, recurring in many wildernesses. For greater simplicity, only the primary themes will be discussed in this paper.

Historic Contexts:

The next step was to develop historic contexts, based on the primary themes. Context identifies the effect of broad patterns (themes) of history over a particular area or locality. Historic context also identifies the contributions of a locality to the history of larger units. These provide the framework for evaluation - for estimating the relative importance of themes and associated events and the level of significance of historic resources. Five historic contexts were described as follows: (1) Expansion of the mining frontier in the Pacific Northwest, 1852-1900 (placer mining); (2) Industrial development of mineral resources in the Pacific Northwest, 1880-1920; (lode mining). This includes industrial extraction of minerals other than precious metals such as cinnabar, tungsten, coal, and copper; (3) Forest Service Administrative Sites in the Formative Period, from Transfer (1905) to 1933. This group would include any buildings built or adapted for administrative use by agents of the General Land Office in the Reserve Period from the Organic Act (1897) to Transfer (1905); (4) Fixed Point Fire Detection System Development, 1905-1945 (Fire lookouts); (5) Backcountry Recreation Resource Development on the National Forests, 1920-1942.

Thematic Groups - Property Types Expected:

Thematic groups, or property types, derive from these contextual frameworks. Property types may include a variety of buildings and structures with diverse physical characteristics or may be based on distinguishable structural types or functions.

Expected buildings and structures associated with the expansion of the mining frontier in the Pacific Northwest, 1852-1900, include small-scale cabins of log construction or sawn lumber, privies, wood sheds & storage buildings, ditches, flumes and headgates for water transportation, paths and roads.

Property types associated with industrial mineral extraction are diverse, based on functions and association. Sites could contain a complete mining system including adits, drifts, shafts and tunnels, transportation facilities e.g. tramways, mill buildings, worker housing, privies, and commercial buildings. Buildings were usually constructed of sawn or milled lumber and dimension.

The role of Federal Government is subdivided into (a) Public land administration, represented by ranger stations; (b) Natural resource conservation - represented by fixed point fire detection systems - including fire lookouts, trails, trail shelters, telephone lines, and guard stations; and (c) backcountry recreation resource development - represented by trails, trail shelters, and trail shelter systems.

Physical and Associative Characteristics:

The mining frontier, 1852-1900, is usually associated with prospecting for and discovery of placer deposits -- with gold rush activity. The frontier shifted or advanced with new discoveries in different areas of the region, so dates vary accordingly. Mining was done by individuals or partners, and was usually not capitalized. Developed facilities were simple and plain. Mining camps and cabins on separate claims were built for temporary use and quickly abandoned once the minerals played out. Native and natural materials were used in construction, e.g. round logs, occasionally hewn, sawn lumber, and stone, dependent on local availability. Some builders were knowledgeable in construction techniques, but a high degree of craftsmanship is only infrequently evident. Fit and finish of logs, and notching type are pragmatic for short term occupation, rapidity and ease of construction; not conducive to permanency. Ingenuity in structural and material solutions to construction problems is often present.

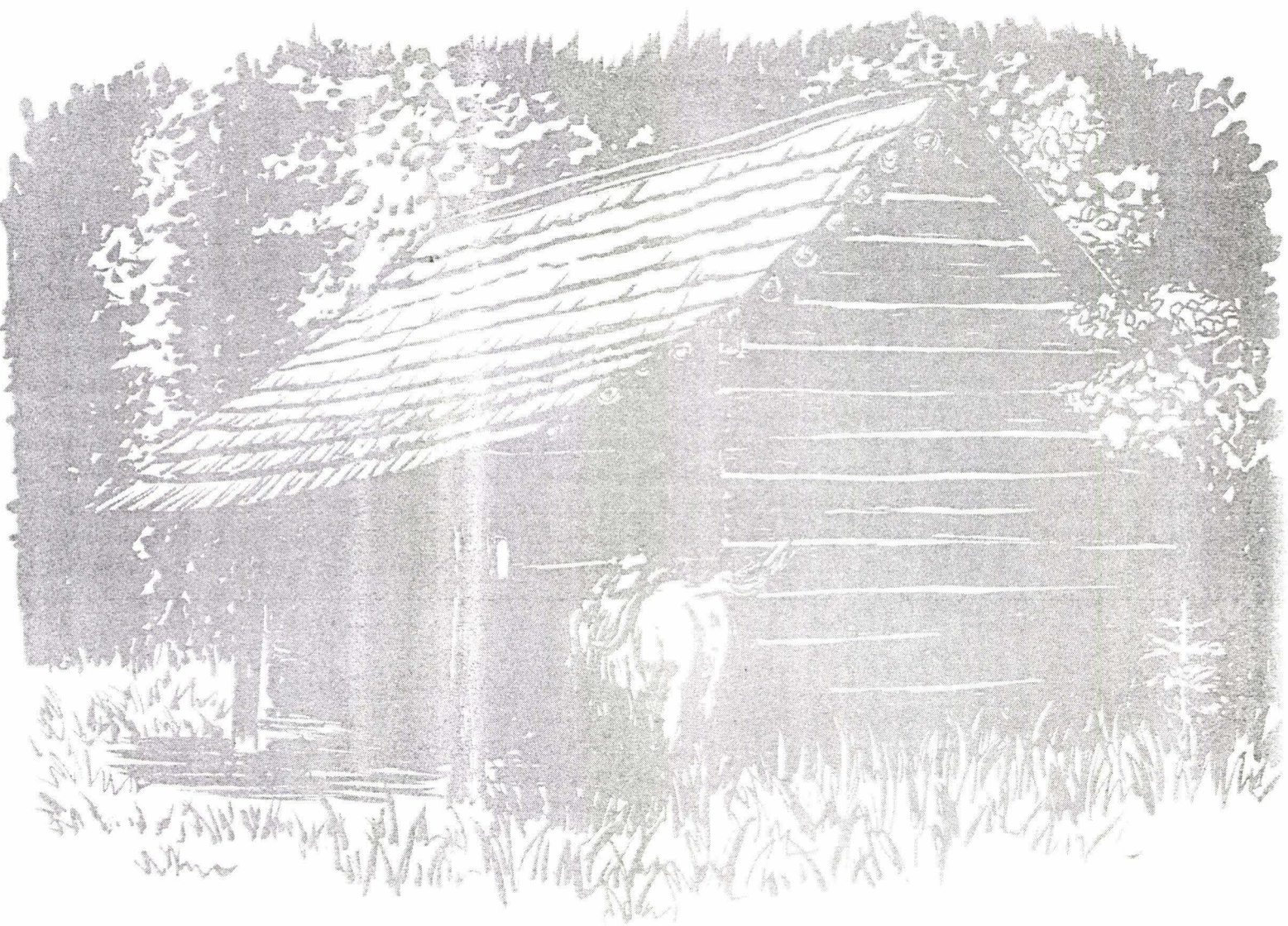
Industrial development of mineral resources, including precious metals, copper, cinnabar (mercury), coal and tungsten, is associated with lode mining. Site development was more extensive, more complex, and more permanent. Mining was done by organized groups - corporate entities, large and small, and was capitalized. Native and natural materials used in construction, often milled. Buildings are large and small, vernacular in design, and functional. Knowledge of construction technology is evident, and finish is workmanlike. Industrial buildings are plain, with no decoration, but designed to accommodate heavy equipment.

Ranger stations, in the period 1905-1933, are small-scale simple buildings, often of log construction (round or hewn), sometimes of sawn lumber (native, natural materials). They were 1-story, with 1 to 2 rooms. Often they were the first permanent administrative buildings that established the physical presence of the Federal Government. Frequently administrative sites compose a single detached building; occasionally the site will contain a limited building group - ranger station, barn, woodshed/storage.

The fixed point fire detection system developed over a period of nearly forty years. Property types describe an evolution in lookout design and detection and suppression technology. The earliest components were merely open, high, vantage points where a person could see into important drainages or sub-drainages with primitive, portable instrumentation. A variation on this was the lookout tree, fitted with a ladder and a platform. The earliest permanent lookout facilities were platform lookouts, with a hewn or sawn plank groundhouse surmounted by a platform. Design was individual. Communication was by heliograph. The cupola was the first standard lookout plan, (1914) and was manufactured by the Aladdin Company as a packable pre-fabricated building. This plan was in wide use until the mid-1930's. Most would have been located in the forecountry, and accessed by trail - or eventually by truck trail. The cupola style, ground-mounted, had living quarters on the lower level with 360° viewing capabilities in upper level cupola. The cupola style was superseded by the L-4 plan - 14' by 14' cab - with gable roof (1930) or hip roof (1932) - with catwalk or without, occasionally ground-mounted, but more frequently on a tower. Building parts were milled or manufactured, and formed in packable sections. The first ring-connected timber-type towers were introduced in 1933. Depending on site requirements, towers varied from 20 to 100 feet in height. A variation was a 7' by 7' cab. These and the steel towers on which they were mounted were manufactured by the Aeroer Company and the Baker Manufacturing Company. These later lookouts replaced deteriorated cupolas in the forecountry and increasingly were located to protect the back country. During the 1920's and 1930's simple guard stations were built in strategic locations within a drainage and connected to the network of fire lookouts by trail and telephone lines. The valuable timber resource being protected was increasingly penetrated by a system of trails. Operation and maintenance of the lookout system depended on trail access. Trails were cleared and repaired, and phone lines restored by trail crews. To maintain maximum efficiency, shelters were built to house the trail crews in the field. Shelters were built of native or natural materials - round logs, or pole and shakes - in a 3-sided plan. A shed roof shape was common.

Backcountry recreation resource development was relatively simple, primarily composing trails and trail shelters, sometimes in planned combinations as trail/shelter systems. Little recreation development occurred on National Forest lands, let alone in backcountry prior to 1933. Personnel professionally trained in recreation, planning, and funding were very limited. It was the developmental force provided by the New Deal work-relief programs that enabled extensive development of recreation facilities. A non-intrusive design philosophy pervaded all construction and shelters were built of native and natural materials, appropriate to the environment and in scale and proportion to the natural setting. The intent of these improvements was to make the backcountry accessible to more users. In a day when camping gear was heavy and cumbersome, shelters were provided for user comfort and convenience. Shelters also provided an element of safety when mountain weather turned

suddenly to rain or snow. In the Pacific Northwest Region, trail-shelter systems are associated with the Cascade Range and the Olympic Mountains, and shelter design reflects those environmental conditions.



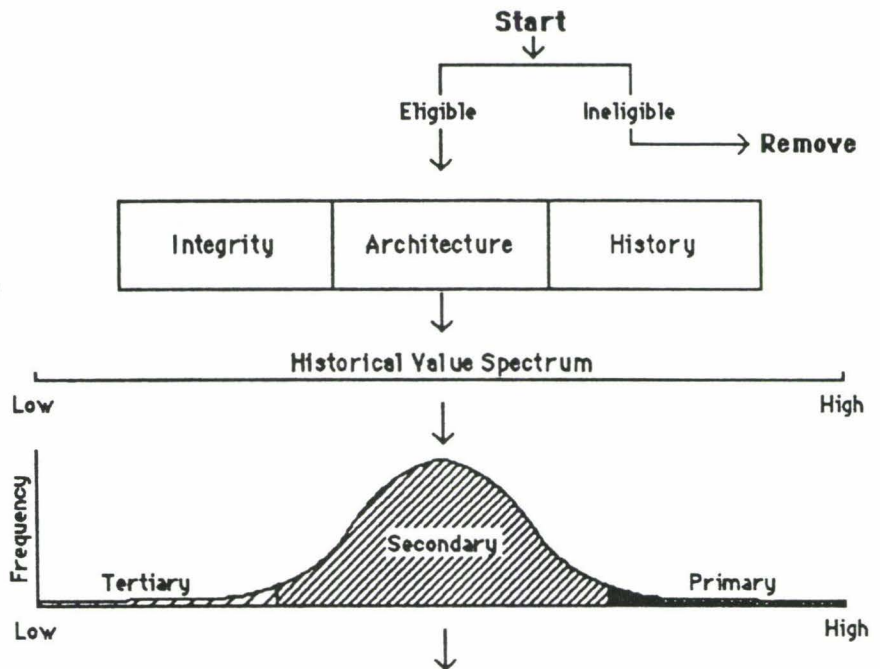
THE ESSENTIAL PROCESS

The "Essential" Process

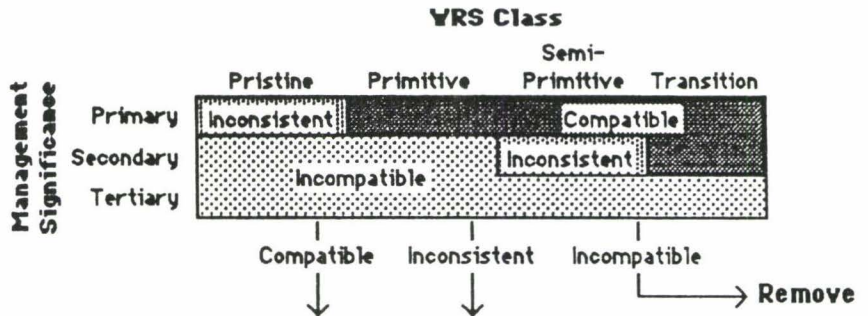
1. Evaluate against NRHP criteria for legal significance

2. Evaluate against detailed criteria for management significance

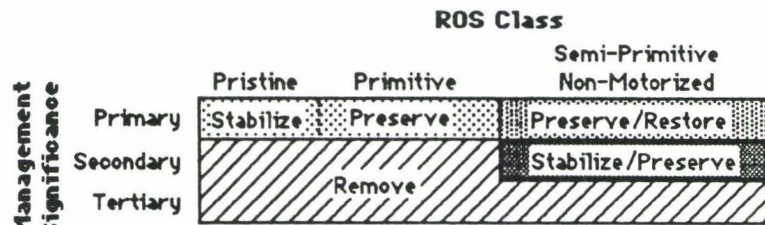
3. Rank-order raw score on Historical Value Spectrum and locate on curve



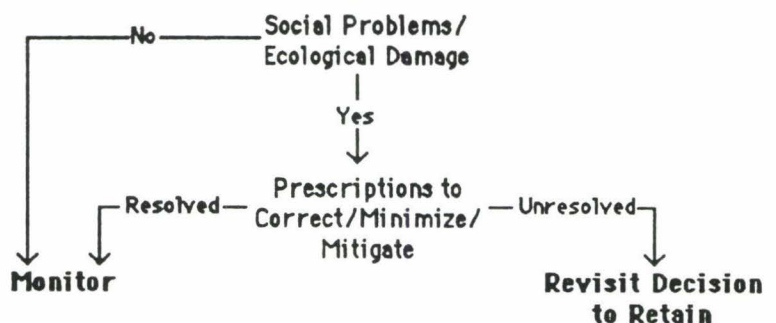
4. Determine retention by WRS class



5. Determine treatment appropriate to ROS class



6. Identify/assess impact; set limit of acceptable change through LAC planning process



THE ESSENTIAL PROCESS

Me-ne, me-ne, tek-el, u-phar-sin
(numbered, numbered, weighed,divided)

Daniel 5:25-31

EVALUATE

The evaluative process is designed to identify those historic resources encompassed in the five thematic groups that are eligible for inclusion in the National Register of Historic Places and also to determine the relative importance of each eligible property with respect to management. The first level of evaluation recognizes the absolute values of the buildings and structures relevant to Section 106 compliance - this is termed legal significance. The second level of evaluation establishes the relative values of the eligible buildings - their management significance.

The National Register criteria (36 CFR 60.4) are basic to the first level evaluation. This evaluation is binary in nature and results in a finding of eligible or not eligible. The second step in evaluation considers the variable historical associative and architectural values. To this end, criteria were developed to assess how effectively the buildings and structures illustrate the cultural, social, political, economic, or industrial history delineated by the context they represent, and the quantity and quality of information contained [changes in technology, cycles of occupancy and abandonment, design concepts, resource development] that cannot be obtained from any other source - or fully understood or appreciated without the physical evidence. Specific standards for measuring building integrity were established. A series of verbal grades was assigned to the several criteria, with numerical values assigned to the various verbal grades. The final evaluation is derived from the sum of the scores for each criterion (Kalman, 1979; Throop, 1983)

Building Integrity:

Building integrity is measured by comparing the present appearance of a building with its original appearance. This comparison consists of a systematic examination of three building elements: (1) form, including both primary and secondary structural components; (2) materials; and (3) setting or context. Any changes or modifications in a building's appearance must be identified and assessed. The criteria for evaluating modifications include the relative importance of the element effected, the degree of severity of modifications found in each of the elements, and the significance of the modifications on the remainder of the building. Modifications are defined according to degree of severity: slight (e.g. replacement of exterior wall or roof materials with new materials that match or duplicate the old in size, shape, and texture), moderate (e.g. replacement of exterior wall or roof materials with unlike materials that are consistent in character - or available at the time of construction), and severe (e.g. resurfacing frame buildings with new materials which are inappropriate), (Bureau of Governmental Research, 1968 as cited in Throop, 1983). Definitions correlate to the guidelines for applying the Secretary of the Interior's Standards (USDI NPS 1985). Each building is given an integrity rating equivalent to a fixed score determined by the type and number of modifications found in the elements examined. (Table 1)

TABLE 1 RATING SCHEME FOR BUILDING INTEGRITY

BUILDING INTEGRITY	TYPE AND NUMBER OF MODIFICATIONS	FIXED SCORE
Unaltered	Fewer than 3 slight modifications	75
Minor Alteration	3 or more slight modifications but fewer than 2 moderate modifications	50
Major Alteration	2 or more moderate modifications but fewer than 2 severe modifications	25
Critical	2 or more severe modifications	0

Architecture:

The evaluative strategy for assessing architectural value includes systematic examination of four factors: design, construction, execution, and chronology. The criteria for evaluating architectural value are: (a) the quality of design commensurate to functional form and material use; (b) the competency of method of construction by suitability to function and adequacy of structure; (c) the quality of craftsmanship/workmanship in execution; and (d) comparatively old in the context of resource class. Criteria considerations include the degree to which a building illustrates how it was conceived, designed, or fabricated, and the degree to which a building illustrates a method or type of construction, or demonstrates traditions of construction particular to a locality, or reflects choice or availability of materials and technology.

The quality of design is assessed compositely by measuring the functionality of form, and the effectiveness of materials use on a scale from 1-10 with 1 very low and 10 very high. Design is less a matter of aesthetic consideration than one of functional solution. A scale from 1-10 is used to gauge the competency of construction method compositely through assessment of suitability to function (by degree of appropriateness to use) and adequacy of structure (by degree of strength in resisting force, strain, and wear). The quality of execution by degree of skill exhibited in workmanship (evidence of craftsmanship) is assessed by scalar values ranging from 1-15. Comparative age is measured on a scale from 1-15 (see Table 2). Overall chronological value is given a verbal grade equivalent to flexible numerical score. (see Table 3). The first two grades, excellent and very good, are both significantly better than average. Good is average. Fair and poor, either separately or combined, are both below average. A maximum score is assigned to each detailed criterion (Table 4) while overall architectural value is rated on a flexible numerical system (Table 5).

TABLE 2
SCALE OF AGES

	1850	1860	1870	1880	1890	1900	1910	1920	1930	1940	1950
Mining Frontier	EEEEEVVVVVVGGGGGGGGPPPPPPPPPPPPPPPPPP										
Industrial Mining				EEEEEEVVVVVVGGGGGGGGGGGGPPPPPPPPPPPPPPPPPP							
Admin. Sites							EEEEVVVGGGGGGPPPPPPPPPPPP				
Fire Lookouts							EEEEEVVVVGGGGGGGGPPPPPPPPPPPPPPPPPP				
Crew Trail Shelters								EEEEVVVGGGGGGPPPPPPPPPPPP			
Recreation Trail Shelters									EEVGGGPPPP		
	1850	1860	1870	1880	1890	1900	1910	1920	1930	1940	1950

TABLE 3
CHRONOLOGICAL RATING

VALUE POINTS	CHRONOLOGY
15	E=Excellent
11	V=Very Good
7	G=Good
1	P=Fair/Poor

TABLE 4 ARCHITECTURAL VALUE

ELEMENT	MAXIMUM SCORE
DESIGN	10 POINTS
CONSTRUCTION	10 POINTS
EXECUTION	15 POINTS
CHRONOLOGY	15 POINTS
TOTAL	50 POINTS

TABLE 5 ARCHITECTURAL RATING

VALUE POINTS	ARCHITECTURE
40-50	EXCELLENT
30-39	VERY GOOD
20-29	GOOD
10-19	FAIR
1-9	POOR

History:

The evaluative strategy for assessing historical associative values includes systematic examination of three factors: affiliation, pattern, and rarity. The criteria for evaluating historical associative value are: (a) the degree of affiliation with events or sequence of events representative of the historical theme; (b) the degree to which the property illustrates the pattern of what was common to the class of resources; and (c) rarity of type.

The degree of affiliation is assessed by measuring how directly events of primary importance are connected to the building on a scale of 1-30. The property's ability to illustrate developmental patterning is gauged by scalar values ranging from 1-30. Patterning may reference variation among individual resources in a class, or spatial organization in a system. Criteria considerations for individual properties include individuality or variation occurring within class, or evolution of class over period of time, or transition between that class and others. Criteria considerations for system components include integrated or isolated spatial relationship and prime or supporting function. Rarity of type is assessed on a scale of 1-15. Factors to be considered include extant population of property type within a single National Forest, within a geographic area defined by 3-4 National Forests having common environmental characteristics, or within the Pacific Northwest Region. Additional factors to be considered include whether the property is unique, one of few examples surviving within a state, a prototype, or ubiquitous. A maximum score is assigned to each detailed criterion (Table 6) while overall historical value is rated on a flexible numerical system (Table 7).

TABLE 6 HISTORICAL ASSOCIATIVE VALUE

ELEMENT	MAXIMUM SCORE
AFFILIATION	30 POINTS
PATTERN	30 POINTS
RARITY	15 POINTS
TOTAL	75 POINTS

TABLE 7 HISTORICAL RATING

VALUE POINTS	HISTORY
61-75	EXCELLENT
46-60	VERY GOOD
31-45	GOOD
16-30	FAIR
1-15	POOR

Results of Evaluation:

When evaluating buildings in multiple property or thematic surveys, and when a precise score for clear differentiation is necessary, grades should be translated into numbers.

It is best to begin by choosing an arbitrary maximum score - say 200 - and then assigning each of the detailed thematic criteria a share of this maximum score. This requires that the importance to the survey of each criterion be determined - a process which takes careful thought (Kalman, p.25). The relative weighting of the criteria should reflect the objectives of the particular evaluation.

The next stage is to assign a maximum number of points to each of the detailed criteria. When assigning points to each grading level within the detailed criteria, *excellent* should receive considerably more points than *very good* in order to separate the outstanding example from the more usual example. One may use a geometric progression or an even more extreme sequence, rather than an arithmetic progression. If plotted on a graph, this kind of sequence would produce a curved line, not a straight line. (Kalman, p. 27)

In this study, Integrity and Historical Association were assigned equal weight, while Architecture was given slightly less weight. This weighting corresponds to the contribution each value makes to a property's overall significance.

The final evaluation is derived from the sum of the scores for each criterion. Total scores possible range from 0-200. The rank-ordering of management significance is

then determined from the curve obtained by plotting the total scores. Breakpoints are arbitrarily selected based on gaps in the distribution of raw scores. Classifications for buildings in descending order of importance are primary, secondary, and tertiary. The classifications are defined as follows:

Primary: These buildings are the most outstanding examples of their type; have excellent qualities of design and construction; are directly associated with events or persons of primary importance in Pacific Northwest regional history; are readily illustrative of developmental patterns; and have a very high degree of building integrity/integrity of composition and configuration.

Secondary: These buildings are very good examples of their type, are strongly associated with events or persons of some importance in state history; are illustrative of developmental patterns; and have a relatively high degree of building integrity/integrity of composition and configuration.

Tertiary: These buildings are good representatives of their type; have standard qualities of design and construction; are associated with events or persons of importance in the locality; help to illustrate developmental patterns; and have a fair degree of building integrity/ integrity of composition and configuration.

A building's score -- and its consequent rank -- will form the basis for decisions about its retention in the context of the Wilderness Resource Spectrum classes.

MANAGEMENT ANALYSIS

Determine Retention by WRS Class:

After legal significance and management significance have been established, the next step is analysis of the location of historic buildings within inventoried Wilderness Resource Spectrum (WRS) classes. The standards for the WRS classes are then applied to determine whether the retention of a historic building of primary, secondary, or tertiary rank is compatible, inconsistent, or incompatible on a class by class basis.

Wilderness is to be managed to prevent degradation. The nondegradation principle seeks to maintain each wilderness in at least as wild a condition as it was at the time of classification. (FSM 4/87 R-6 Supp 81 -- 2322.03) The WRS is associated with the Recreation Opportunity Spectrum (ROS) as subclasses within the Primitive and Semi-Primitive Non-Motorized ROS classes. The WRS describes conditions within wilderness. The social, physical and biological factors that compose the values of wilderness are all aspects of condition.

The area characteristics, experience opportunity, and bio-physical, social, and managerial standards and guidelines for each WRS class are enumerated in detail in FSM 4/87 R-6 Supp 81 - 2322.03. Selected standards have direct relevance for determining the suitability of retaining a historic building in individual WRS classes. These standards are identified here for convenient reference.

Pristine: Essentially no facilities are required to protect the wilderness resource....Free from evidence of past human activities. Management control neces-

sary to protect the ecological and social elements... are evident outside the wilderness and at trailheads and boundary portals.

Primitive: Essentially free from evidence of human-induced restrictions and controls. Only essential facilities for resource protection and safety are used and are constructed of native or natural appearing materials. No facilities for comfort or convenience of the user are provided.

Semi-Primitive (And Transition): Minimum on-site controls and restrictions may be present but are subtle. Facilities are only provided for the protection of wilderness resource values rather than visitor comfort or convenience. No permanent human evidence except for facilities and structures that qualify as historically significant or as otherwise authorized...

Integrating historic ranking with WRS class is a search for compatibilities. For purposes of the Essential Process, compatible is defined as capable of existing together in harmony. The values of wilderness and of human history are in equilibrium when the evidence of past human activity is not intrusive. Properties found compatible are suitable for retention, are essential for cultural resource management. This infers a very high historic value because the wilderness resource has value dominance for management. A property that is inconsistent does not meet the WRS class objectives but its superlative level of historic significance affords it special dispensation. Properties that are inconsistent may be retained in interim status for further planning consideration. An incompatible property is by definition intrusive and incongruous with WRS objectives, and may be abandoned to deteriorate through natural processes following suitable mitigation. These concepts are illustrated in the Retention by WRS Class matrix (Figure 1).

Determine Treatment Appropriate to ROS Class:

Determining which buildings are essential to cultural resource management and should be retained by integrating historic ranking with WRS class is the initial phase of management analysis. The second phase is coordinating historic ranking with ROS class to discover what management treatments are suitable to the setting. The Recreation Opportunity Spectrum (ROS) depicts the range of recreation environments from urban to primitive. Because it so closely parallels the historic developmental spectrum that describes the continuum from civilization to wilderness, the ROS is the ideal framework for selecting the appropriate management treatment for historic buildings by class. Systematic application of the tenets of the ROS, including the setting criteria, results in a diversity of management treatments that help to realize the desired experience accorded each class. Wilderness is encompassed in Primitive and Semi-Primitive Non-Motorized (SPNM). Management treatments are consistent with the site development level normal to the class. For example, Development Level I is the norm for the Primitive ROS class, and fully compatible with Semi-Primitive Non-Motorized, while Development Level II is the norm for Semi-Primitive Non-Motorized. These scales are defined (FSM 9/85 Amend 95 -2330.3) as:

Primitive	<i>Level 1.</i> Minimum site modification. Rustic or rudimentary improvements designed for protection of the site rather than comfort of the users. Use of synthetic materials excluded. Minimum controls are subtle. No obvious regimentation, Spacing informal and extended to
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Figure 1. Retention by WRS Class

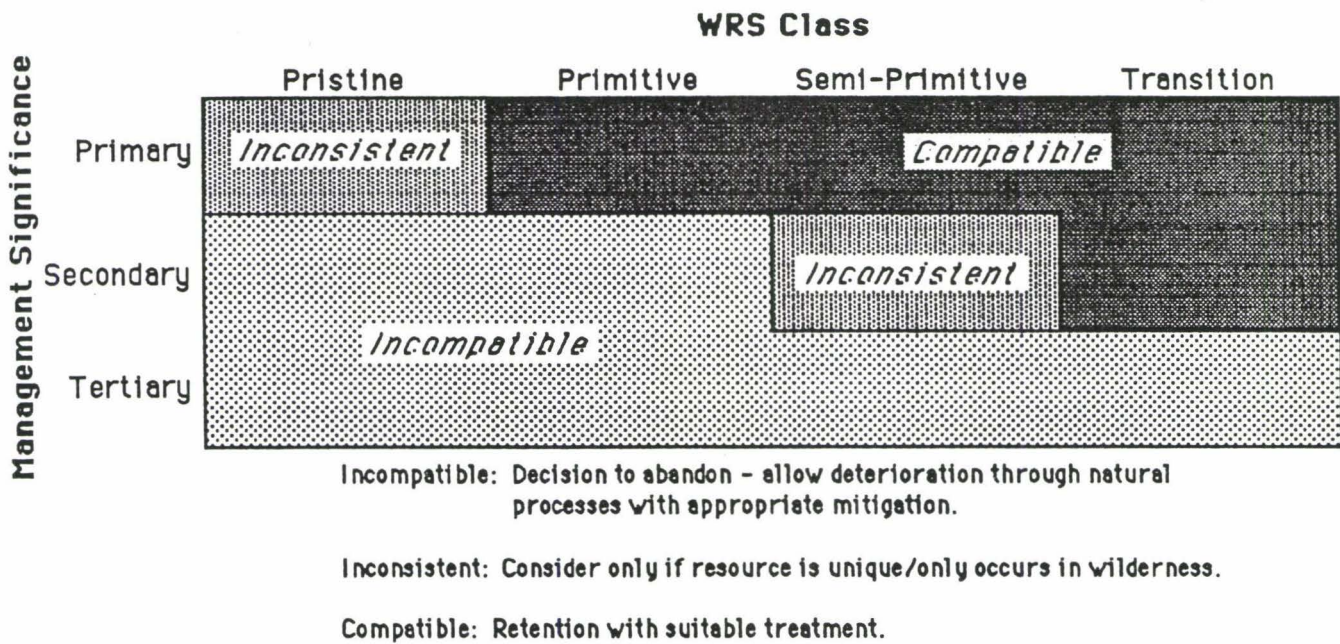
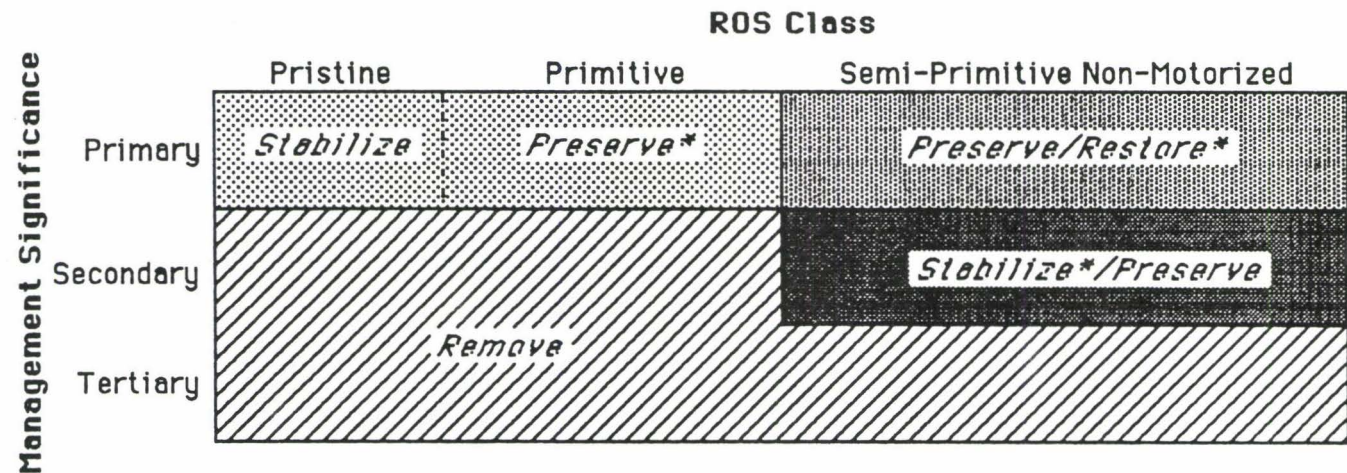


Figure 2. Treatment Appropriate to ROS Class



minimize contacts between users. Motorized access not provided or permitted.

Semi-
Primitive

Level 2. Little site modification. Rustic or rudimentary improvements designed primarily for protection of the site rather than the comfort of the users. Use of synthetic materials avoided. Minimum controls are subtle. Little obvious regimentation. Spacing informal and extended to minimize contacts between users....

The comparable treatment for primary buildings in the Primitive ROS class is preservation. Preservation is also the norm for primary buildings in the Semi-Primitive Non-Motorized class, with restoration found to be fully compatible. Stabilization is the prescribed treatment for primary buildings in the Pristine subclass, and for highly rated secondary buildings in the SPNM ROS class. These concepts are graphically displayed in the Treatment Appropriate to ROS Class matrix in Figure 2. Management treatments are carefully defined and correlate to the Secretary of the Interior's Standards For Historic Preservation Projects (36 CFR 68.2):

Stabilization is the act or process of applying measures designed to reestablish a weather resistant enclosure and the structural stability of an unsafe or deteriorated property while maintaining the essential form as it exists at present.

Preservation is the act or process of applying measures to sustain the existing form, integrity, and material of a building....It may include initial stabilization work, where necessary, as well as ongoing maintenance of the historic building materials.

Restoration is the act or process of accurately recovering the form and details of a property and its setting as it appeared at a particular period of time by means of the removal of later work or by the replacement of missing earlier work.

Stabilization may be considered to be a temporary measure that anticipates future preservation treatment. This long-term temporary treatment is suited to a building's interim or conditional status. If after additional study, including identification and assessment of impacts resulting from the presence of the building, it is determined that the property should be retained, then preservation treatment can be undertaken.

Rehabilitation, defined as the act or process of returning a property to a state of utility through repair or alteration which makes possible an efficient contemporary use while preserving those portions or features of the property which are significant to its historical, architectural, and cultural values, is not identified as a norm or fully compatible in any ROS class in wilderness. This is because the treatment presupposes the reuse or a new use of a building that is either inadequate or in disuse, which may be incompatible or inconsistent with wilderness management objectives. Such proposals must be evaluated on a case-by-case basis.

Those buildings that are found incompatible should be abandoned and allowed to deteriorate through natural processes after appropriate mitigation. Where impacts from the building's presence are severe or temptation to maintain it is great, whether by Forest Service or "Friends of," consideration may be given to dis-establishing a weathertight enclosure to accelerate the process of deterioration, or to removal.

Identify/Assess Impact - Set Limit of Acceptable Change (LAC):

Following determination of treatment appropriate to ROS class, it is necessary to identify and assess the impacts, if any, associated with the historic building site, and to set a Limit of Acceptable Change for the site through the LAC planning process. These procedures are consistent with the nondegradation principle of wilderness management.

The LAC process consists of four major components: (1) the specification of acceptable and achievable resource and social conditions, defined by a series of measurable parameters; (2) an analysis of the relationship between existing conditions and those judged acceptable; (3) identification of management actions necessary to achieve these conditions; and (4) a program of monitoring and evaluation of management effectiveness. These four components are broken down into nine steps to facilitate application.

The planning procedure consists of a series of interrelated steps leading to development of a set of measurable objectives that define desired wilderness conditions. It also identifies the management actions necessary to maintain or achieve those conditions. The first step in the LAC process is identification of area issues and concerns. The presence of a historic building warrants special attention. Often a building is an attraction drawing people to a site. This can result in unacceptable ecological damage from trampling and in social problems from the congregation of large numbers of people at one time. Further, there is risk of harm to the historic resource. Administrative sites and trail shelters particularly were located where water and forage were available (e.g. meadows), and often adjacent to attractive physical features that were and remain destinations.

The second step is to define and describe the opportunity classes. Designation of opportunity classes follows the basic Recreation Opportunity Spectrum (ROS) system. Typically within wilderness areas, the Primitive and Semi-Primitive Non-Motorized classes would apply, and further designation can be made based on the WRS classes of Pristine, Primitive, Semi-Primitive, and Transition. In defining opportunity classes, consideration must be given to the type and severity of visitor impacts, the prevalence and extent of impact and the apparentness of impacts (extent to which impact is noticeable to visitors). In all probability this step and the preceding one have been addressed in the Forest planning process.

Indicators of resource and social conditions are selected next. There are two relevant factors for areas containing historic buildings. These reference the physical attraction or destination location of many historic sites. In addition, depending on access and remoteness, a building site could be the destination for a day hike as well as for overnight stay. Campsite condition is analogous as an indicator for resource condition while campsite solitude may serve as an indicator for social condition. Indicators of campsite condition may include the number of campsites per 500-acre area (a circle 1 mile in diameter), the square feet of devegetated area within any 5-acre circle, the condition class rating based on the severity of a number of impacts on the campsite with a class 1 very minimally impacted and class 5 severely impacted. Indicators of campsite solitude include the number of other parties camped within sight or sound per day. The fourth step, inventory of existing resource and social conditions, is guided by the indicators selected in step 3. Field conditions are

examined to determine standards that are feasible but that will protect wilderness conditions.

In step 5, the task is to assign quantitative or highly specific measures to the indicators. This greater specificity is obtained by establishing standards that are measurable aspects of the indicators. Table 8 contains an example of standards. Standards should be adjusted to suit areal conditions.

Table 8 - EXAMPLE OF STANDARDS

Opportunity Class	Factor	Indicator	Standard
Semi-Primitive	Campsite Solitude	No. of camp encounters/ party/day	Two encounters or less per night for at least 90% of tallies during main use season.
Primitive	Campsite Solitude	No. of camp encounters/ party/day	One encounter or less per night for at least 90% of tallies during main use season.
Pristine	Campsite Solitude	No. of camp encounters/ party/day	No encounters for at least 90% of tallies during main use season.

Table 8 - EXAMPLE OF STANDARDS (continued)

Opportunity Class	Factor	Indicator	Standard
Semi-Primitive	Campsite Condition	Camps per 500 acres Devegetated area/5 acres Condition Class	Not more than 15 sites in any 500 acres. Not over 2,500 sq. ft. No class 5 sites not more than 3 class 4 sites in 500 acres.
Primitive	Campsite Condition	Camps per 500 acres Devegetated area/5 acres Condition Class	Not more than 8 sites in any 500 acres. Not over 1,000 sq. ft. No class 5 sites; not more than 1 class 4 site in 500 acres.
Pristine	Campsite Condition	Camps per 500 acres Devegetated area/5 acres Condition Class	Not more than 2 sites in any 500 acres. Not over 200 sq. ft. No class 4 or 5; not more than 1 class 3 site in any 500 acres.

The next three steps in the LAC planning process focus on alternatives to provide needed flexibility. Alternative allocations to opportunity classes are a means to determine what resource and social conditions are to be maintained or achieved in specific areas of the wilderness, as well as a mechanism for finding different ways of resolving critical problems in specific locations. Alternative allocations allow for reasoned deviations from the nondegradation concept without setting a precedent for minimally acceptable conditions elsewhere. This step is prescriptive.

Following this step, the management actions necessary to achieve the standards are identified for each alternative allocation. There may be a number of possible management actions available, but not all will be appropriate. The actions are designed to bring conditions back to their desired state or assure that they stay in the desired state. An alternative is chosen and implemented. Monitoring provides the feedback necessary to periodically modify management actions, or in some cases, standards or objectives.

When the Limit of Acceptable Change has been established for an area containing a historic building, the Essential Process is complete. In summary, the Process composes evaluation of legal and management significance, and of analysis of management issues through application of the WRS and the ROS systems and the LAC planning process. There are no new procedures introduced in the Essential Process. It is instead a formulation of selected elements of existing systems applied to resolve the question, "What is essential to cultural resource management in wilderness?"



APPLICATION

AN APPLICATION OF THE ESSENTIAL PROCESS

Introduction - The Timberline Trail Shelter System:

The following example provides a step by step illustration of the Essential Process. The process is applied to the Timberline Trail-Shelter System in the Mt. Hood Wilderness, Mt. Hood National Forest, and focuses on concepts as well as specifics. The Timberline Trail-Shelter System is a challenging subject for testing the process because it represents a limited property type, with a restricted population. The thematic survey encompassed the nineteen National Forests in the Pacific Northwest Region, and also adjoining National Parks. All known properties of this type are located in designated wildernesses.

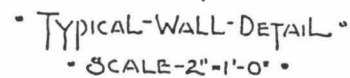
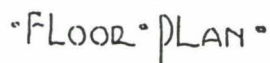
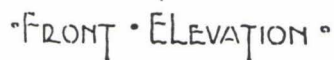
A summary of the property's description and historical significance is included as background. The summary recapitulates the application of the National Register criteria used to determine eligibility and thus, establish legal significance, the first step in the Essential Process. The Timberline Trail is located on the Zigzag and Hood River Ranger Districts, Mt. Hood National Forest, in Clackamas and Hood River Counties, in northwestern Oregon. Timberline on Mt. Hood is at an elevation of 6000 to 6500 feet above sea level. The trail follows timberline as closely as possible, detouring only when necessary to obtain safe crossings of the turbulent glacial streams and their steep, eroded canyons. The total length of the trail is thirty-six and one half miles.

Description:

The trail was planned, designed, and built as a complete trail system, with trail shelters located at specified intervals (average 4 miles) as integral parts. The trail was built under the auspices of the Civilian Conservation Corps in 1933-1935; the majority was built during the summer of 1934, with the last section of trail, on Yocum Ridge, completed in 1935. The trail was designed for easy hiking or riding, with the tread varying from 28 to 48 inches in width depending on slope. Guidance on marking the trail was specific: "across barren areas, the trail is to be marked by cedar posts 6"square and 8'long, with 6' above ground".

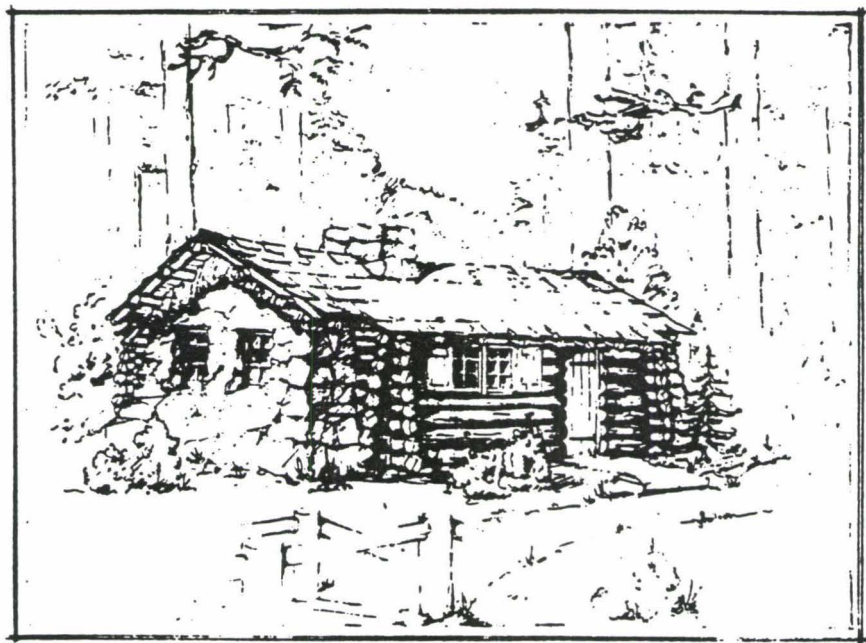
When the Timberline Trail was proposed, access to the timberline zone on Mt. Hood included a trail to Paradise Park, a trail up Vista Ridge to Eden Park, a road to Cloud Cap on the north side up Stranahan Ridge, and a climbers trail from Government Camp to the summit on the south side. Access was expanded during the historic period by the construction of such feeder trails as the Lost Lake Trail, the Zigzag Mountain Trail, the Pinnacle Ridge and Elk Cove Way Trails, the Lamberson Butte Trail from Elk Meadows, and the Umbrella Falls Trail from Hood River Meadows. The Oregon Skyline Trail provided access from both northwest and southeast. The Hidden Lake Trail, the Cathedral Ridge Trail, and the Newton Creek Trail were built subsequently to complete radial access.

Four major changes in the route of the Timberline Trail have occurred since the period of initial construction. All of the relocations are essentially bypasses, leaving the original alignment in place, but unmaintained and largely unused. A fifth major change to the Timberline Trail, as designed and built, is a modification of the trail's

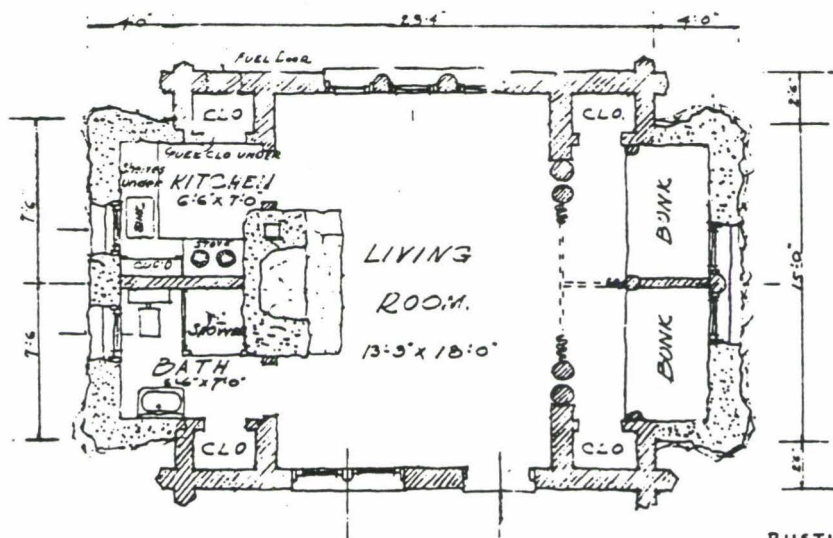


"SCALE 1/2" EQUALS 1'-0" "

" WILLIAMSON, & BLANCHFIELD "
" DESIGNERS "
" JULY 1934 "



PERSPECTIVE



FLOOR PLAN

NOTE:

Chimney flashing should allow for settlement & shrinkage of bldg.
Provide good foundation for bldg.
Side walls 7'-6" above floor.
Windows app. 1/2 fl. area if bldg sets in wooded area.

RUSTIC TYPE
MOUNTAIN CABIN
Scale 1/4"=1'-0"
U.S. FOREST SERVICE

REGION 6

LANDS HANDBOOK PLATE-16
(SPECIAL) CEN-9-335 Portland, Ore.

physical environment and setting on the southeast side of the mountain where a ski area was developed at Mt. Hood Meadows.

To ensure the permanency of the shelters, the Forest Service adopted a unique method of construction. Shelter walls were built of stone, roofed with steel girders and galvanized sheet iron. "They are intended chiefly for protection to small parties against blizzards and storms. Fuel is scarce at timberline, especially when snow covers the ground. Wooden structures are sometimes utilized for fuel by travelers ... and so at timberline an indestructible shelter is essential in the interest of safety for parties who may be caught in a storm on the mountain." (Steele, 1937). Where the trail descended below timberline into forested areas, shelters were built of logs, or of pole and shake construction. With three exceptions, the shelters are located immediately adjacent to the trail. The others are located some distance, varying from 500 feet to nearly one-half mile, from the trail. A total of ten shelters, seven stone and three wood, were built in direct association with the Timberline Trail. Five of these, four stone and one wood, survive intact.

The shelters were built according to a plan designed by Francis E. Williamson, Jr., Forest Recreation Assistant, and Emmett U. Blanchfield, Regional landscape architect. The plan is dated July, 1934. An undated, handwritten note indicates that shelters were built at Paradise Park, McNeil Point (above trail), Cairn Basin, Elk Cove, Cooper Spur, Lamberson Butte, and above trail near Mitchell Creek. The Lamberson Butte shelter is more commonly referenced as the Gnarl Ridge shelter. The shelter designated as Mitchell Creek but actually located near the headwaters of the middle branch of the East Fork Hood River is rarely referenced. For this evaluation, it will be termed the Mt. Hood Meadows shelter. The Upper Sandy Guard Station, although not an integral part of the Timberline Trail System, is included in the evaluation because of its direct association with the Trail from the mutual period of construction in 1935. The relationship is one of cause and effect. The Guard Station was built specifically to protect the Bull Run Division from public entry, which was prohibited by the Congressional Act establishing the Bull Run Reserve in March, 1892. Prior to construction of the Timberline Trail/Oregon Skyline Trail in 1933-35, the six-mile boundary was almost completely protected by the wild and rugged terrain, and inaccessible by trail.

In the intervening 53 years since its construction by the Civilian Conservation Corps, the Timberline Trail System, including the trail shelters, has undergone changes which have altered its initial configuration and composition. However, the system is clearly that established in early 1930's plans. Its intended purpose as an easily accessed hiking trail, and its use patterns are unchanged. The trail has substantial integrity of design and lay-out, with nearly 85% of the alignment in its original location. Material alterations to the built features have modified their original appearance to a very limited extent, and the several standing shelters possess integrity of design, materials, and workmanship to clearly convey their historic identity. The integrity of the trail system's location and setting are little impaired. Of the total 36.5 mile distance, more than 30 miles follow the original trail alignment. Where the trail has been relocated, the bypassed sections are generally intact. The natural setting of the trail is undisturbed except for the three mile section that crosses Mt. Hood Meadows. Feeling and association remain those of the period of construction.

Evaluation Against National Register Criteria:

The Timberline Trail was the realization of a dream to encircle Mt. Hood with a single continuous trail. When nearing completion in 1934, the *Oregonian* billed it as the opening of the wonders of Mt. Hood to the common man who was not prone to exerting himself in strenuous climbs on the mountain. The Timberline Trail system was built by the Civilian Conservation Corps in 1933-1935, according to a 1930 recreation area plan developed by Forest Service "recreation assistant" Francis E. Williamson. Jr. The shelter plan, dated July, 1934, was designed by Williamson and Emmett U. Blanchfield, the Regional "landscape engineer". Comprising a geographically definable rural area possessing a significant concentration of sites and structures united aesthetically by plan and physical development, the Timberline Trail System constitutes a district. Possessing integrity of location and setting, the facility retains the feeling and association of the period of its construction. Albeit modified somewhat by the loss or ruin of five of the shelters, and by four bypass relocations of the trail tread, the original design of the trail system is essentially intact. While material modifications to the built features have altered their original appearance slightly, the five standing shelters retain integrity of form and plan, and exhibit a preponderance of historic fabric and structure. The shelters convey their rustic identity through such essential physical features as massing, scale, proportion, and material texture and treatment. The initial high quality of workmanship in construction and finish remain evident.

1. The Timberline Trail System is significant under National Register criterion a (36 CFR 60.4 (a) because of its association with early USDA Forest Service recreation planning and development. The Timberline Trail System demonstrates the evolution of recreation planning, and the transition of Forest Service recreation development policy, from a limited role of providing the space for recreation to a greatly expanded one of providing more complex and elaborate facilities. As one of the primary facilities featured in the "showcase" Mt. Hood Recreation Plan, the Trail System may manifest the rivalry between the Forest Service and the National Park Service that was one of the important political forces influencing recreational planning and development during the period. Through land use classification, the Mt. Hood Recreation Plan reflects the historical theme of public land management, specifically National Forest administration. As a central feature of the Plan, the Timberline Trail System helped to answer questions about resource conservation, recreational development, public access, and protection of natural scenery within the area of timberline on Mt. Hood, during the period from 1925-1940. The broader historical patterns described by the activities, policies, and programs of the Forest Service are those of natural resource conservation and development, and public land management.

In addition to the Forest Service-Park Service rivalry, other political forces influenced recreation planning and the development of the Timberline Trail System. A new land use classification was imposed on the planning process. The creation of the Mt. Hood Primitive Area, occupying the high country about Mt. Hood to the north and west of the summit, was, in part, a response to development pressures, even as the establishment of the Mt. Hood Recreation Area in 1926 was a means to reduce outside agitation for a National Park. The Primitive Area was designated by Chief

Forester Robert Y. Stuart, on February 13, 1931, under the L-20 Regulations. Plans for the Timberline Trail System were consistent with direction for proposed permanent improvements in the Plan of Management section of the Establishment Report:

Only such improvements as are necessary for fire control and to meet the demands for recreation travel by foot or horseback should be considered for this area... If improvements are found to be necessary, they should be approved only under consideration that they fit as closely as possible to primitive area standards.

Trails may be made somewhat wider and better than average administrative trails, at least in dangerous places.

Shelters built out of material at hand may be constructed, but only by approval of the Forest Supervisor, both as to location and style.

The area was reclassified as the Mt. Hood Wild Area under the U-2 Regulation on June 27, 1940. The Timberline Trail System met the wilderness standards for simple trail and shelter construction conforming with the primitive surroundings. With expanded boundaries, the Mt. Hood Wild Area was included in the National Wilderness System in 1964; the area was increased in 1978.

The work of Francis Williamson, in conceiving, planning, and designing recreation developments on Mt. Hood in the 1920's, demonstrates conclusively that the ideas about recreation facilities, layout, and use embraced in the mid-1930's were not entirely new. The difference in planning lay in elaboration; the difference in design lay in a focused design philosophy that emphasized non-intrusiveness - all aspects of "Depression-era" development were expressed in terms of rustic. The level of development realized in the 1930's was anticipated in Williamson's Mt. Hood recreation plan in the 1920's.

The Timberline Trail System as built in 1933-34 reflects in several important ways the changing philosophy in recreation development that was emerging. The location and number of shelters differs substantially from the original plan, and the design is clearly Rustic in style. The trail itself follows the 1930 location, and thus represents the physical expression of the earlier idea.

The Timberline Trail System also meets criterion a because of its direct association with the political and legislative events of President Franklin D. Roosevelt's New Deal. These events signify the unprecedented intervention of the federal government in the economic life of the country and in the welfare of its citizens. Specifically associated with the Civilian Conservation Corps, the trail system now recalls the agency created to put unemployed young men to work reclaiming and developing the nation's natural resources, and illustrates its significant contributions to relief, recovery and reform. The broader historical pattern inherent in these events is the recasting of American thinking on the responsibilities of government, and the resultant change in the role played by the Federal government.

Already planned and laid-out, the Timberline Trail System was easily identified as a high priority task. With construction beginning in 1933, the Timberline Trail was one of the earlier ECW projects. As such, the trail represents the theme of the Federal

response to the Depression. This theme embodies the achievements of the direct-aid work relief program established by the Federal government in response to the immediate problem of unemployed youth, and reflects the role of the USDA Forest Service in the Civilian Conservation Corps program. All increments of the trail system were built by the CCC, and illustrate the pattern of labor-intensive handcrafted construction work that was the hallmark of the CCC program. The trail construction project characterized the developmental force employed by the Forest Service to meet its goals in recreation development. The trail system project also recalls the CCC program as a means of providing training and experience to unskilled young workers.

2. The Timberline Trail System is associated with the lives of Francis E. Williamson, Jr. and Fred W. Cleator who are significant as pioneers in the field of recreation in the Pacific Northwest Region of the Forest Service. Their insight and creativity profoundly affected recreation development on the Forest and in the Region. As Regional Recreation Examiner, Fred Cleator had a strong and long lasting influence on recreation planning and development regionwide. A man of considerable vision, Cleator provided dynamic leadership, practical direction, and sensitive guidance. His name appears on almost every recreation plan or project during the period of the 1920's-1930's as the author or as the reviewer. It was in the North Pacific [now Pacific Northwest] Region that Forest Service recreation development reached its highest point in the 1930's. But even before the beginning of the New Deal, the North Pacific Region's recreation program, headed by Fred Cleator, had led the National Forest system in recreation facility development. In 1936 an assistant to Chief Silcox could accurately report that the North Pacific stood far above the other Regions in recreation work. The level of development of some of the more popular National Forest areas in the Northwest even surpassed that of the National Parks of the region. The many recreation structures stood as symbols of the high sensitivity of the Forest Service in the Northwest to recreational needs.

As recreation assistant on the Mt. Hood National Forest, Francis Williamson's involvement with the Timberline Trail System was complete. He conceived, planned, and designed the trail system and oversaw its construction. As evidenced in the planning for the Timberline Trail System, Williamson's ideas were not confined by the conventions of the 1920's. He was also instrumental in expanding the concept of a recreation complex on Mt. Hood to encompass a wide range of uses year round, anticipating winter sports use on the south side as early as 1926. In addition, during the 1930's, he achieved a high level of development in the Mt. Hood Recreation Area that was regionally outstanding in its variety and quality of facilities, including a series of campgrounds and picnic areas along the Mt. Hood Loop Highway. Williamson's work produced one of those National Forest recreation areas that surpassed the National Parks in diversity and level of development.

3. The shelters meet National Register criterion c because they embody the distinctive characteristics of the Rustic style of architecture particular to the Forest Service in the Pacific Northwest Region, and exclusive to the Depression-era, 1933-1942. The shelter design, developed by Francis Williamson and Emmett Blanchfield in July 1934, is recognizably rustic. It is also notable as an early articulation of the emerging regional expression: as yet, maturity and eloquence have not been achieved. The lines are too straight and regular, and the stone masonry is a shade too formal and finished to be totally appropriate to the rural/sylvan setting. The

Paradise Park Shelter, which was built according to this design, almost without modification, relates poorly to the surrounding landscape. The remaining shelters, which depart from the plan, particularly in the stone masonry, are more successful. The informal presentation looked more natural, more like outcrops of rock, and the shelters more nearly meet the goals of rustic - architecture that is subordinate to its setting, an accessory of nature rather than a man-made feature dominating the scene. A comparison of the shelter design with a description of the rustic ideal reveals the nascent qualities of the early example:

Rustic was appropriate to rural environments, but neither rude nor artless. Successfully handled, it was a style which, through the use of native materials in proper scale and through the avoidance of rigid straight lines and over-sophistication, achieved sympathy with natural surroundings and intimacy with landscape. Basic to this ethic of nonintrusiveness were the concepts of subordination, reticence, and assimilation. Regularity and symmetry were rejected. Important factors in the achievement of "accessories to nature" were predominantly horizontal lines, low silhouette, organic forms and scale, proportion and texture of the building materials.

Vigor and forthrightness of design, complexity of plan and richness of detail distinguish rustic from contemporary derivative styles. Most distinctive is the conscious appreciation of the environment. Suitability or fittingness to the site is paramount!

Satisfactory character enjoined the quality of native materials, not the fact of nativeness. Stylistic ambiance demanded informal presentation, textural interest, and natural rhythm. Correct structural interpretation depended upon a clear perception of the aesthetic qualities of a setting and a comprehensive understanding of that setting's circumstantial requirements.

Each functional component is homogeneous in character as evidenced by uniformity of design and fabric. Continuity within the complex was achieved through repetition of forms and treatments. This visual cohesiveness contributes to an overall ensemble character.

Notwithstanding the loss of some detail, the design characteristics of the individual components are clearly recognizable. Collectively, they portray the distinguishing attributes of the rustic idiom, and support the site's historic identity. The shelters' relationship to the landscape and to each other is unimpaired, and these relationships convey the sense of the historic environment. The unchanged setting, the spatial arrangement, the forms and fabrics of the shelters and their structural interpretation define the trail system as a Depression-era construction.

4. The Timberline Trail System contains information about early Forest Service recreation planning, as well as information about early efforts in rustic design and application of the nonintrusive design philosophy. The transitional nature of the recreational development, embodying both the conservatism of 1920's recreation policy and the innovation of the 1930's, adds importance to the information contained.

The Timberline Trail System, as a planned entity, is not duplicated in the region, and is not approximated in the western United States. Several of the major peaks in the Cascade Range, including Mt. Adams and Mt. Rainier, have historically developed trails around the mountain. The trail around Mt. Adams is located at a roughly comparable elevation, but has no associated shelters built for recreational hikers. The Wonderland Trail around Mt. Rainier does not consciously follow the timber line zone, but descends often to quite low elevations. There are four trail shelters, two log and two stone, built by the CCC, within the Park for the comfort and convenience of hikers, but incidentally located. If the Wonderland Trail was planned as an integrated system, it was not fully executed.

The idea of a trail with associated shelters built at regular intervals may have been manifested first in the Appalachian Mountain Trail. The trail, which runs the length of the Appalachian Mountain chain, and the shelters were built by the several chapters of the Appalachian Trail Club, over a period of time, and according to local custom. A few similar linear recreation trails with associated shelters built during the historic period may exist, particularly in Glacier National Park, but the population is limited. The Cascade Crest/Oregon Skyline Trail, now the Pacific Crest Trail, was modeled on the Appalachian Trail, but surviving trail shelters built in direct association for recreational use are limited to two in the Mt Baker-Snoqualmie and Wenatchee National Forests and three in the Willamette National Forest.

The trail-shelter system, defined as a trail with shelters built as integral parts of a whole, can be identified as a property type. The property type can be further defined on functional lines, recreational systems and fire protection systems. The number of known representatives of the property type is relatively small. The Timberline Trail System is a regionally outstanding representative of this property type, and exceptional as a recreational facility.

The qualities of significance in state/regional history and in architecture are present in the Timberline Trail System. Though somewhat altered in composition and configuration, the location of the trail is clearly that of the 1930 plan, and the spatial organization of the shelters is that of the Depression-era. While material alterations to the built features have modified their original appearance to an extent, the shelters retain integrity of form and plan, and exhibit a preponderance of historic fabric and structure. Sufficient integrity of workmanship is present in the stone masonry construction, in the material finish, and in the building details to convey the technological practices and aesthetic principles of the period.

Built by the Civilian Conservation Corps, the Timberline Trail System is associated with events important in Forest Service recreational development policy. The Trail contains information about the underlying design philosophy, and the planning concepts of two decades. The Timberline Trail System meets the criteria of significance and is eligible for inclusion in the National Register of Historic Places.

Evaluation Against Detailed Criteria:

Having established that the Timberline trail-shelter system is eligible for the National Register, at the state/regional level of significance, the system was measured against the detailed criteria for building integrity, architecture, and history. This is the second step in the Essential Process.

In the first analysis, the application of the building integrity criterion had to be adjusted to accommodate the trail-shelter system which is a single but compound property. The shelters were evaluated individually, their scores totalled, and the average taken as the integrity rating for the group. The present appearance of the shelters was compared with their original appearance. Form, materials, and setting were examined systematically. Any changes or modifications were identified and assessed. The results revealed that the Paradise Park, McNeil Point, and Elk Meadows shelters qualified as Unaltered, the Cairn Basin Shelter has Minor Alteration, and the Cooper Spur Shelter has Major Alteration. Giving each shelter a fixed score equivalent to the verbal grade, the total score was 300 points. The total score was divided by five to get an average score of 60.

Only the shelters were considered in evaluating integrity under this criterion. Conceptually, the trail and shelters compose a single integrated system and are considered as a single property type. The components of the system were designed and developed together. The trail and shelters are separable as types of facilities, however. Because the essential process is intended to deal with buildings, the Timberline Trail itself is not in question.

The specific standards for architecture were applied again considering only the shelters. Design, construction, execution, and chronology were examined. Of a possible total of 50 points for architectural value, the shelters scored 39 points. The separate analyses are included below.

Because there are two designs, each was rated separately and the average calculated. The design for the stone shelters is functional and practical and clearly takes climatic and environmental conditions into account. The materials specified not only reflect local availability but also congruity with the timberline setting. The score for design was 8.5. The design for the pole and shake Adirondacks-type shelter is a practical traditional solution that is functional and appropriate. Material treatment is conventional rather than innovative but suitable. The score was 7.5. The average score given to shelter design was 8.

Both construction methods were found to be competent. The stone masonry construction was both suitable to function to a very high degree and very adequate in resisting the forces, strains and wear imposed by the exposed high elevation building sites. The score for construction was 8.5. The pole post and beam construction was suitable to function to a high degree and adequate to resisting the forces, strains, and wear imposed by conditions at the site, including substantial snow loading. There is evidence of deterioration in some of the structural members (sill logs, vertical posts) so that in time, without treatment, the structure will become inadequate. The score for construction was 7.5. The average score was 8.

The quality of execution was assessed for each shelter. The degree of skill exhibited in workmanship varied slightly, but was uniformly high. The stone masonry ranges from random coursed, squared rubble with well-defined low profile mortar joints to ashlar-like random rubble with no distinct mortar joints: consistent skills in the craft are demonstrated in the individual shelters. Execution of the shelter plan as designed is somewhat more erratic. Individual scores for execution are as follows: Paradise - 13.5; McNeil - 12.75; Cairn Basin - 11.25; Cooper Spur - 12. Execution of the pole and

shake shelter in Elk Meadows was workmanlike, with evidence of a high level of skill in log joinery. The score for workmanship was 11.25. The average score was 12.

Chronology was assessed using the age scale for recreation trail shelters. All of the shelters were built in 1934, giving them a rating of very good and a score of 11 points.

Finally, the shelters' historic value was gauged using the detailed criterion for history. The Timberline Trail-Shelter system scored 66 points of a possible total of 75 for historical associative value, and is rated as excellent. The analyses of the separate factors follows.

Affiliation was measured by the degree of importance of associated events and the directness of their connection with the shelters. The Timberline trail system is significant for its association with early Forest Service recreation planning and development and with the visionary people who conceived and carried out the development of the recreation resource; with the political and legislative events of Franklin Roosevelt's administration, and particularly with the Civilian Conservation Corps which characterized the tenor of the New Deal. The trail system is also significant because it embodies the distinctive qualities of the Rustic style of architecture; it is notable an early articulation of the emerging regional expression. These associations are direct -- intimately connected with the shelters -- and of prime importance. The score for affiliation was 25.

The shelters' ability to show developmental patterning is strong. Individually, they show variation within the group, as well as very early articulation of the Rustic expression developed by the Forest Service in the Pacific Northwest Region. Together, the shelters with the trail demonstrate an integrated spatial relationship. For these reasons, the score for pattern was 27.

The trail-shelter system scored 14 for rarity. The Timberline system is one of three known recreation trail-shelter systems in the Pacific Northwest, including National Forest System lands and National Parks, and is the most intact, most distinctive, and best preserved.

Overall, the Timberline Trail-Shelter System (50 % intact) scored 165 out of a total of 200 points. In comparison, the remnant Cascade Crest Trail-Shelter system (14 % intact) scored 127 points, and the surviving Oregon Skyline Trail-Shelter system (38% intact) scored 149 points. With a population of three, plotting the raw scores does not produce any meaningful curve but shows decisive gaps in the distribution of the scores. These breakpoints are the basis for differentiating rank order. Thus, the Timberline Trail-Shelter system is ranked as primary, the Oregon Skyline Trail-Shelter system as secondary and the Cascade Crest Trail-Shelter system as tertiary.

Management Analysis

Examination of the WRS inventory maps prepared for the Mt. Hood National Forest Land and Resource Management Plan reveals the Timberline Trail Shelters are located as follows: Paradise Park - Transition; McNeil Point - Semi-Primitive; Cairn Basin - Transition; Cooper Spur - Transition; Elk Meadows - Meadows-Transition, Connector Trail to Timberline Trail - Semi-Primitive. Semi-Primitive is the Desired Future Condition for Transition. (G.Sachet, March 24, 1990). By application of the WRS matrix, the shelters, which are primary buildings, are found to be compatible with WRS objectives and suitable for retention.

Following the process one step further, the primary buildings are integrated with the Primitive and Semi-Primitive ROS classes to determine what management treatment is appropriate. The comparable treatment for Primary buildings in the Primitive ROS class is preservation. Preservation is also the norm for primary buildings in the Semi-Primitive Non-Motorized class, with restoration found to be fully compatible.

Finally, a Limit of Acceptable Change should be set for each building site. All of the shelters are easily accessed by feeder trails as well as the round the mountain route. Their locations also coincide with particularly attractive areas of the mountain - parks and ridges - that are both day hike and overnight destinations. The shelters are added attractions as "landmarks". Heavy visitation has produced noticeable wear and tear, soil compaction, and devegetation -- both ground cover and adjacent trees.

Assessment of existing conditions may have been done for the Forest planning process, as well as a determination of desired conditions. Without accurate information to measure the difference between existing and desired, this paper will not specify site by site Limits of Acceptable Change. This should be completed in consultation with Forest and District staff when the sites are accessible.

On a theoretical basis, then, alternative management actions are suggested to correct, minimize or mitigate ecological damage and social problems. Some measures have already been taken to reduce physical impacts on Paradise Park and much of the Timberline Trail. These include closure to horse use. To meet requirements for equestrian access to the Pacific Crest Trail, which shares a common tread on the west side of Mt. Hood, a section of the Pacific Crest Trail was relocated to a less sensitive area.

In a similar manner, the Timberline Trail could be relocated below Cairn Basin to minimize traffic impacts in the ecologically sensitive areas. The Paradise Park, Cairn Basin, and Elk Meadows shelter sites should be closed to overnight camping. This would minimize longer-term focused occupancy which contributes significantly to ecological damage. Day hikers stay a shorter period of time, and may individually have less physical impact, but the numbers of hikers multiply the effect. It is the number of people and the frequency of contact that compromise the social conditions. "Innumerable people cannot enjoy solitude together." (Ecologist Stanley A. Cain quoted in Nash, 1973). This defines the social problem for which there is no easy solution. It may require intensive management, including limitations on number of parties and on party size, on week-ends. If such regulation was necessary, interpretive services outside wilderness would become a vital tool to achieving public acceptance. Such interpretation must go beyond involving the public in the history

of the trail-shelter system to involving the public in its preservation, and in the management of the wilderness. If one hasn't been done already, a marketing study to determine exactly who uses the wilderness and how would not be out of order. This information could be used to appeal to that audience effectively, and to bring them into the solution as partners. Working through the LAC process should make it possible to avoid restricting and regulating visitors except when and where truly necessary.

Monitoring is necessary to assure the objectives are being met and the conditions are not descending below the Limits of Acceptable Change set for the shelter sites. This will provide feedback on the effectiveness of the management actions employed. In this way, more rigorous application of the prescribed actions could be made, or other measures used. Finally, it would allow for change in the standards or objectives if appropriate. The decision to retain the shelter(s) may be reviewed at any time if all measures to abate site impact fail.



CONCLUSION

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Process Summary:

Forest Service policy does not preclude retention of National Register eligible buildings, but in practice management direction tends to favor abandonment. The Manual states that Regional Foresters may approve stabilization or restoration and subsequent maintenance of such structures if their continued existence is essential to cultural resource management. The Essential Process is a classification system intended to define the level of significance needed to merit retention, and the qualities required to make a property essential to cultural resource management. Further, it provides a framework for identifying acceptable alternative treatments that meet both wilderness and cultural resource management objectives. In its simplest form, the process should answer the questions of which, why, where, when, and how.

Results:

The Essential Process was tested in a case study using the Timberline Trail-Shelter System. The subject system is a compound property composing a trail with five associated shelters. It was designed and developed as a unit, and is treated as a single entity. This complexity challenged the Essential Process in parts, but ultimately demonstrated its flexibility. The process was found to have Regionwide utility, and with some adjustments, Servicewide applicability. For this project, the process was designed to address property types representing five different thematic groups. The range of thematic groups and property types could easily be expanded: chronological scales could be added to accommodate the greater diversity of resources. The process appears to be a logical extension of the new draft Forest Service Manual direction on management of cultural resources in wilderness. It is an objective and effective analytical tool for managers.

Recommendations:

Each of the elements in this synthetic process are components of systems with proven value. The ROS system has wide utility and application. The WRS is an effective classification tool for wilderness management. The Limits of Acceptable Change planning process employs these systems in outlining a wilderness management-by-objective scheme to identify standards, define acceptable wilderness conditions, and formulate appropriate management actions. In addition, the technique of thematic evaluation has been demonstrated to be an efficient and expeditious method for dealing with large and varied resource populations. In combination, these processes should have added value for management.

The Essential Process is recommended for use as a basis for decisions relevant to the allocation of resources in the five thematic groups to *in situ* preservation and other management treatments. It is recommended that the process be adopted at the Regional Level in the Pacific Northwest Region. With further testing and refinement, the Essential Process may be submitted to the Washington Office for suggested adoption Servicewide.



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